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REMARKS

Claims 1-37 were rejected under 35 USC 102 as being anticipated by Milton, US Patent 6,529,300. Applicants respectfully traverse.

The Examiner paraphrases claim 1 and asserts that the reference teaches the claim, citing Figures 4, 7, 8, and 13, as well as col. 20, lines 20-35, col. 3 lines 23-35 and lines 50-67, col. 4, lines 45-60, col. 6, lines 30-55, col. 7, lines 1-10 and col. 9, lines 5-15.

Actually, all of the claims are rejected by paraphrasing the language of the respective claims and merely pointing generally to figures and text. In fact, the figures and passages cited with respect to all of the rejected claims are the figures and passage cited in connection with claim 1.

Applicants respectfully submit that applicants are owed more of an explanation than a mere paraphrasing of a reference to a plurality of figures and a bulk of text. Applicants respectfully submit that this rejection is not sufficient to provide applicants the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity (MPEP 706).

Referring to the substance of claim 1, applicants respectfully disagree that the cited figures and passages teach, or that the reference generally teaches, the subject matter of claim 1. Indeed, it is respectfully submitted that the reference's teaching is orthogonal to the claimed subject matter.

Claim 1 specifies a core optical ring with at least one node that is coupled to a subtending system by an optical crossbar switch, a tunable laser, a stacker, an unstacker, and a detector. Claim 1 specifies that the stacker forms "a first composite packet from a set of serial packets," the composite packet "being [composed of] parallel packets in a single photonic time slot." This composite packet is added to a vacant photonic time slot on the optical ring, and a second composite time slot that is on the optical ring is dropped, and serialized in the defined unstacker. Thus, it is composite packets that are added to or dropped from the core ring, each one being added or dropped in a photonic time slot.

No such composite packets and no such operation is described in the Milton reference. The concept of an photonic time slot is totally absent in the Milton reference. Rather, it is quite clear that each node in the Milton reference adds or drops a preselected associated band of wavelengths. This is evidenced, for example, by the very first paragraph

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of the "Summary of the Invention" section of the patent; where the clause that begins at line 16 states

... and an interface at each node for dropping a band associated therewith, adding a band carrying traffic for another node, and passively forwarding other bands.

Thus, where in the Milton reference each node add or drops a particular band of wavelengths, in claim 1 each node adds or drops information of a photonic time slot. The two approaches are totally different and, one might say that they are orthogonal to each other.

Claims 2-12 depend on claim 1 and are believed unanticipated by the Milton reference at least by virtue of that dependence.

Regarding claim 2 in particular, it is respectfully submitted that the figures and passages cited by the Examiner do not describe a stacker or an unstacker, and they certainly do not describe a stacker and an unstacker that form a single interleaved device. A stacker, according to claims 1, is a device that forms the first composite packet; that is, a device that creates a packet that occupies a photonic time slot and contains parallel packets. In applicants' view no such device is found in the Milton reference, and no such composite packets are found in the Milton reference. If the Examiner disagrees and believes that a particular element within any of the figures corresponds to the elements of claim 2, the Examiner is respectfully invited to identify this element.

Admittedly, the ring network of Milton does have packets that flow through the ring, and those packets do have different bandwidths. However, they are not handled as composite packets that are constrained to be within a specific photonic time slot and, more importantly, to repeat, there is no device for stacking packets into a time slot, or unstacking packets from a time slot.

Regarding claim 3, which defines the output of the stacker element, it is respectfully pointed out that the above remarks establish that the Milton reference does not have a stacker element and, consequently, there cannot be any teaching of the output of the stacker element.

Claim 4 specifies a stacker with an optical circulator and a plurality of fiber bragg gratings (fbg), one fbg for each wavelength that the tunable laser generates, but the cited

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figures and passages do not teach either a circulator or a plurality of fbg's. Actually, in a passage that is NOT cited by the Examiner, at col. 4, line 66 et seq., the reference states:

Physically the MUX/DEMUX 10, 11 each consist of a single high performance optical interference filter that transmits the selected band to be dropped/added and passively reflects the remaining bands. The filters can be, for example, dichroic filters, Bragg grating filters based on circulators, and Bragg grating based on fused biconic taper.

This passage mentions a single filter, and mentions that the filter can be a bragg grating filter based on circulators. FIG. 3 shows a MOX 11 and a DEMOX 12, and between elements 10 and 11, the stacker corresponds more closely to MOX 11. However, there is no teaching to the effect that element 11 has a plurality of fbg's, as the claim specifies.

Claim 5 defines the structure of a composite packet. As established above, however, there are no composite packets in the Milton reference in the first place.

As for claim 6, applicants' remarks concerning claim 4 apply to claim 6.

Claim 7 defines one particular embodiment of the stacker-unstacker combination element. No such element exists in the Milton reference and, not surprisingly, there is no element that is constructed as specified in claim 7.

Claim 8 depends on claim 7, specifying an embodiment that employs mirrors. Mirrors are not even mentioned in the Milton reference.

Claims 11 and 12 specify particular embodiments of the stacker and the unstacker. No such embodiments are found in the figures or text cited by the Examiner, nor anywhere else in the Milton reference.

Claim 13, not unlike claim 1, specifies a device for creating a composite packet, and the claim itself defines the composite packet as

being parallel packets in a single photonic time slot, said first composite packet to be added to said core optical ring in a vacant photonic time slot via said optical crossbar switch;

As indicated in connection with claim 1, no such composite packets exist in the Milton reference. Additionally, claim 13 defines an unstacker that is photonic time slot centric, and no such element is described in Milton.

Claim 14 also employs composite packets. Claim 14 does not explicitly define the contents of a composite packet but the specification is very clear as to what the term "composite packet" means, and the claim does specify that the composite packets are

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inserted into a vacant time slot of the ring network. As indicated above in connection with claim 1, whereas the ring network disclosed by applicants is a time-slot based ring network, and claim 14 clearly reflects that, the ring network of Milton is not a time-slot based ring network.

Claims 15 and 16 depend on claim 14, and they include limitations regarding the photonic time slots. As indicated above, the Milton reference has no teaching regarding photonic time slot operation. Claim 18 depends on claim 15.

Claim 17 also specifies composite packets, and further specifies a wdm that serializes demultiplexed packets. In addition to not having composite packets, the Milton apparatus does not serialize demultiplexed packets, as is clearly evident from Milton's FIG. 3 element 19 and elements 14. Claim 20 depends on claim 17.

Claim 19 contains practically all of the limitations mentioned above that are not found in the Milton reference. Specifically, claim 19 contains the limitation of a composite packet that includes a plurality of parallel packets in a single photonic time slot, and the limitation of a ring that operates in time slots. In also specifies a plurality of 3 and 4 port circulators, and a plurality of fbg's that are sandwiched between the circulators. None of these elements are found in the Milton reference.

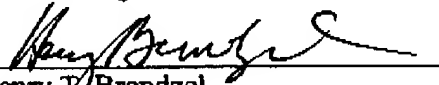
Claim 21 is similar to claim 1, and applicants respectfully direct the Examiner's attention to the argument pertaining to claim 1.

Claim 22-37 depend on claim 21, and most of the claims contain limitations, similar to the ones discussed above. For sake of brevity, they are not repeated here.

In light of the above remarks, applicants respectfully submit that all of the Examiner's rejections have been overcome. Reconsideration and allowance are respectfully solicited.

Respectfully,
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